

C-2 SPECIFICATIONS

SECTION 07 31 29 WOOD SHINGLES

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

- A. Provide labor, equipment, and materials to re-shingle structures identified in the schedule at the Tizer Cabin admin site. Work shall consist of stripping off the old shingles and disposing of the material in an approved dumping site, repairing or replacing shiplap sheathing if needed (assume 10% of all sheathing), and other requirements that follow in this specification.
- B. Quantities are provided in the schedule. Contractors are strongly encouraged to verify quantities prior to ordering materials.

1.2 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to avoid water damage and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.

1.3 JOB CONDITIONS

- A. Proceed with installation work only after substrate construction and penetrating work have been completed.
- B. Proceed with installation work only when weather conditions are in compliance with manufacturer's recommendations and when substrate is completely dry.

PART 2 - PRODUCTS

2.1 SHEATHING

- A. ½ inch rough sawn or dimensional lumber of a naturally durable wood species.

2.2 FLASHING

- A. Roof flashings should be at least 26-gauge, corrosion resistant sheet metal, preferably painted galvanized steel or painted aluminum.

2.3 WOOD SHINGLES

- A. No. 1 Blue Label sawn and kiln-dried western red cedar shingles, 16" length.

2.4 NAILS

- A. Aluminum or hot-dipped zinc-coated min. 4d box except for hips and ridges which shall be long enough to penetrate sheathing 1/2 inch.

2.5 UNDERLAYMENT

- A. Underlayment shall comply with ASTM D 226, Type I or ASTM D 4869, Type I or II.
- B. 30 lb per 100 square feet (type IV of glass mat).

2.6 ICE BARRIER

- A. 3 ft width minimum, self-adhering polymer modified bitumen sheet.

PART 3 – EXECUTION

3.1 GENERAL

- A. Clean substrate of any projections and substances detrimental to shingling work.
- B. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.
- C. Replace shiplap sheathing that has experienced excessive rot/decay. Assume 10% of all existing sheathing will need replacement.
- D. Coordinate installation of shingles with flashing and other adjoining work to ensure proper sequencing.
- E. Do not install shingle roofing until all vent stacks and other penetrations through roofing have been installed and are securely fastened against movement.
- F. Lay with butts as straight as practicable considering the texture of the shakes.
- G. Two nails per shake at least 1 inch from edge and about 1 inch or 2 inches above the butt line of the following course.

- H. Place minimum 20-inch wide valley metal in center of valley with center crimp.
- I. Lay shingles working away from valley with shingles trimmed parallel to valley to form a 6-inch wide gutter.
- J. Make miter cuts at valley on one wide shingle.
- K. Adjust exposure if necessary when about midway between eave and ridge so that coursing will appear uniform.
- L. Lay scant 10 inch wide strip of felt over the crown of hips and ridges.
- M. Build hips and ridges with shingles approximately 6 inches wide, double starters, and lap from alternate sides. Tack straight edges on roof, 5 inches from centerline of ridge, one on each side to ensure a neat installation.
- N. Install flashing around projections through roof as required to make a watertight structure.

3.2 INSTALLATION – ROOF APPLICATION

- A. In addition to details indicated, comply with installation details and recommendations of the wood shingle roofing section of “The NRCA Roofing and Waterproofing Manual”.
 - 1. Felt Underlayment
 - a. Apply one 36”wide layer of No. 15 roofing felt horizontally over entire surface to be shingled, lapping succeeding courses a minimum of 2 inches. Fasten felt with sufficient number of galvanized roofing nails to hold in place until shingle application.
 - 2. Shingle weather exposure:

**International Residential Code Table R905.7.5
Wood Shingle Weather Exposure and Roof Slope**

Roofing Material	Length (inches)	Grade	Exposure (inches)	
			3:12 pitch to <4:12	4:12 pitch or steeper
Shingles of naturally durable wood	16	No. 1	3.75	5
		No. 2	3.5	4
		No. 3	3	3.5
	18	No. 1	4.25	5.5
		No. 2	4	4.5
		No. 3	3.5	4

3. Use 2-ply construction unless otherwise noted on drawings.
4. Install shingles, beginning at lower end with a double layer starter course, projecting shingles 1-1/2" beyond sheathing. Space adjoining shingles 1/4" to 1/2" apart, nailing each shingle with two nails spaced 3/4" from edge of shingle and 1" above butt line of subsequent courses. Stagger edge joints a minimum of 1-1/2" in succeeding courses. Install shingles to provide weather exposure as indicated. Cut and fit shingles at ridges and edges to provide maximum weather protection.

B. Flashing:

1. Install metal flashing and vent flashing as needed and in accordance with details and recommendations of the Wood Shingle section of "The NRCA Roofing and Waterproofing Manual".

C. Extra Stock

1. Excess shingles are to be left for future maintenance use by the Government.

END OF SECTION

SECTION 10 31 00
FIREPLACE CHIMNEYS

PART 1 – GENERAL

1.4 DESCRIPTION OF WORK

- A. Provide labor, equipment, and materials to completely replace the chimney system with new code compliant system. Work shall consist removing the existing chimney system and disposing of the material in an approved dumping site, and other requirements that follow in this specification.
- B. Quantities are provided in the schedule. Contractors are strongly encouraged to verify quantities prior to ordering materials.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to avoid water damage and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.

1.6 JOB CONDITIONS

- A. Proceed with installation work only when weather conditions are in compliance with manufacturer's recommendations and when substrate is completely dry.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Provide all materials necessary to properly vent the existing wood stove with a new chimney system. Products may include, but are not limited to, single wall pipe, double wall pipe, insulated pipe, flashing, roof penetration protection components, etc.

PART 3 – EXECUTION

3.1 GENERAL

- A. Remove existing 6" stove pipe chimney system.
- B. Install new chimney system following manufactures installation instructions and specifications. New system shall comply with all combustion clearances and termination location shall comply with IRC clearances.

END OF SECTION

C-3 GENERAL SPECIFICATIONS

- a) EXISTING FACILITIES.** In addition to the requirements of the Use of Premises Clause, AGAR 452.236-70, all existing facilities structures damaged by the Contractor shall be replaced or repaired by the Contractor at no additional cost to the Government. This includes any facilities inside or outside the project limits, including along any access routes.

Do not trim or damage vegetation except with specific Contracting Officers (CO) approval.

- b) POLLUTION AND EROSION CONTROL.** During all operations under this contract, the Contractor shall exercise reasonable measures to prevent or minimize soil erosion and pollution of water and other resources. All refuse, including garbage, rubbish, and solid or liquid wastes, from the Contractor's operations, including camps, parking areas, and equipment maintenance areas shall be stored, collected, and disposed of in a sanitary and nuisance-free manner. Refuse shall be disposed of in State-approved landfills unless otherwise approved by the Contracting Officer (CO).
- c) COORDINATION WITH DISTRICT OPERATIONS.** The work will take place in areas critical to daily ranger district operations. The Contractor shall maintain regular contact and coordination with the district representative to assure that district operations are not hindered by the work.
- d) STORAGE AND STOCKPILING.** The Contractor shall confine storage of equipment, materials, and vehicles to within the limits delineated by the Contracting Officer. The Contractor shall be solely responsible for the loss of or damage to materials stored on Forest Service lands or elsewhere.
- e) COORDINATION WITH OTHER CONTRACTORS.** The Contractor shall maintain regular contact and coordination with all other contractors working on the district compounds to assure that the operations of other contractors are not hindered by the work.
- f) WORKSITE CLEANLINESS AND FINAL CLEANUP.** Maintain the project work areas in a clean and orderly condition throughout the progress of work under this contract. All refuse, including garbage, rubbish, and solid or liquid wastes from the Contractor's operations shall be stored and collected in a sanitary manner and disposed of off Government property in a legal manner. Maintain strict control of hazardous materials to prevent contamination of the site.
- g) EQUIPMENT SPECIFICATIONS.** Equipment and tools shall be in good mechanical and operating condition, fully capable of performing all phases of the specified work.

- h) **WEATHER CONDITIONS.** Work will be suspended if, in the opinion of the Contracting Officer, weather conditions preclude effective protection of resources, site rehabilitation, or otherwise impact project end results in a significant, negative manner.
- i) **SANITARY FACILITIES** – An outhouse and non-potable water source are available on site.
- j) **NOTIFICATION.** Contractor shall notify the C.O. at least two weeks prior to entering a work site.

C-4 HAULING AND DISPOSAL OF MATERIALS

- a) All loads shall be completely covered during hauling.
- b) All materials removed from the site shall be disposed of in a legal manner off National Forest System lands. All fees associated with material disposal shall be paid by the Contractor.

C-5 CLEANUP AND DISPOSAL

The Contractor shall at all times keep the area in an orderly condition. Upon completing the work, the Contractor shall remove from the site and premises any rubbish, tools, equipment, and materials that are not the property of the Forest Service. Upon completing the work, the Contractor shall leave the work areas in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

C-6 EXISTING UTILITIES

The Contractor is responsible for location of all utilities prior to beginning work. Damaged utilities shall be repaired at the Contractor's expense.

C-7 - FOOD AND GARBAGE STORAGE

All food, beverages, and scented or flavored toiletries must be stored unavailable to bears at night and when unattended during the day. Attractants include but are not limited to canned food, pop, beer, garbage, grease, processed livestock or pet food, toothpaste, and chap stick. All attractants shall be hung at least 10-feet off the ground and 4-feet from any vertical support, or stored inside a bear resistant container or vehicle. Cars, pick-up cabs, enclosed horse trailers, hard sided campers or camper shells are all considered bear resistant. Food should be stored out of sight in vehicles. Coolers, pop-up campers, backpacks, and tents are not considered bear resistant.

C-8 – FIRE CONTROL (FS.236.1)

- (a) Contractor's Responsibility for Contractor-Caused Fires – The Contractor, whether or not directed by the Forest Service, shall immediately extinguish, without expense to the

Government, all fires on or in the vicinity of the project which are caused by Contractor's employees, whether set directly or indirectly as a result of Contractor operations. The Contractor may be held liable for all damages and costs of additional labor, subsistence, equipment, supplies, and transportation resulting from fires set or caused by the Contractor's employees or resulting from contract operations.

- (b) Other Fires – For the purpose of fighting forest fires on or in the vicinity of the project, which are not caused by the Contractor or his employees, the Contractor when requested by the Contracting Officer shall place his employees and equipment temporarily at the disposal of the Forest Service. Payment for such services will be made by the Government at not less than the current rate for fire-fighting services established by the Forest Service in the area concerned.

Any employees and equipment furnished will be relieved from fire fighting as soon as the Forest Service finds that it is practicable to employ other labor and equipment adequate for the protection of the area.

An equitable adjustment in contract time may be made for this period.

- (c) Fire Plan – At all times during closed fire season period, as specified by State law, the Contractor shall comply with each of the following provisions to the extent applicable to his operation under the contract.

1. Fire Tools – The Contractor will provide for each employee in the contract area at least one approved hand tool of a type appropriate in the contract area, such as shovel, pulaski, or ax. Tools required and furnished under (2) and (4) below, shall count toward fulfillment of the above requirement. Where additional tools, beyond those required under (2) and (4) below, are to be provided, the Contractor shall seal such tools in one or more boxes painted red and marked "Tools for Fire Only." All tools required herein shall be kept sharp and in good serviceable condition and maintained at locations to be designated by the Forest Service.
2. Fire Extinguishers and Tools on Mobile or Stationary Equipment – Each unit of powered equipment used in connection with this contract, including automobiles, trucks, tractors, etc., shall be equipped with serviceable tools and fire extinguishers as follows:
 - One - fire extinguisher, dry chemical type of not less than 2-1/2 pound capacity with 4 BC or higher rating.
 - One - shovel, round point #0 lady or equal.
 - One - ax, 2 pounds or over, 26-inch minimum length, or one pulaski.
 - One - water container (at least 1-gallon capacity), not required with stationary equipment.

3. Blasting – Fuse or prima cord shall not be used unless authorized in writing by the CO with special precautions stated.
4. Smoking – Smoking shall not be permitted within the contract area except on surfaced or dirt roads, at landings, within closed vehicles, in camps, or at other posted places, and shall never be allowed while working or traveling on foot.
5. Storage of Petroleum and Other Highly Flammable Products – Gasoline, oil, grease, or other highly flammable material will be stored either in a separate building used exclusively for such storage, or at a site where all combustible debris and vegetation is cleared away within a radius of 25 feet. Fire extinguishers and/or sand barrels may be required at such locations specified by the Forest Service when unusually hazardous conditions exist.
6. Precautions for Stoves – Stovepipes on all temporary buildings, trailers, and tents using wood burning stoves, will be equipped with roof jacks and serviceable spark arresters of mesh with openings no larger than 5/8 inch.

All stovepipes, inside and out, will not be closer than 2 feet from any wood or other flammable material or 1 foot if the combustible material is protected by a metal or asbestos shield.

7. Welding – Welding or use of cutting torches will be permitted only in areas that have been cleared or are free of all material capable of carrying fire. Flammable debris and vegetation must be removed from within a minimum of 10 feet radius of all welding and cutting torch operations. A shovel and a 5-gallon standard backpack water container (filled), with hand pump attached, shall be immediately available for use in the event of a fire start.
8. Fire Plan – Prior to initiating work on the contract area, during the closed fire season period, a fire prevention and suppression plan will usually be prepared. The Contractor and the Forest Service will jointly prepare this plan. Such plan shall include a detailed list of men and equipment at the Contractor's disposal for implementing the plan. The fire plan shall also specify additional measures and/or special requirements, such as Hoot Owl restrictions, necessary during periods of critical fire weather conditions.

When Hoot Owl restrictions are invoked, the Forest Service may curtail or shut down all or portions of a Contractor's operations. The following requirements may be imposed:

- a) All high fire risk operations could be terminated at 1300 local time.
- b) All burning could be stopped, including debris burning fires.

- c) Patrolman may be required for a period of 2 hours after high fire risk operations and 1 hour after end of work shift. The Contractor shall provide the patrolman unless the contract is for equipment rental, in which case the Government will provide the patrolman.

C-9 MEASUREMENT AND PAYMENT

The method of measurement will be as designated in the SCHEDULE OF ITEMS. The accepted quantity will be paid for at the contract unit price for the Pay Item shown in the SCHEDULE OF ITEMS. Payment will be for all labor, equipment, transportation, supervision, operating supplies, materials, and incidentals necessary to complete the work as specified.